Healing Process:

**Post-Injection 1-10 days:** Gap is filled with wbc’s and PRP is activating to prepare for cross bridging.

**Protection Phase Week 1-Week 3:** Allow the initiation of cross-bridging and filling the gap with the prp

**Light Activity Phase: Week 2-5:** Collagen synthesis and aligns in the longitudinal axis, initiating tensile strength

**Return to Activity: Week 3 - 3 months:** Collagen increasing tensile strength and elasticity

Patient Response:
- Day 1 and 2: painful in the joint
- Day 3-6: Diminishing pain and improving significantly
- Day 7: Sometimes no pain at all, improved quality of ROM

*Therefore, pain is not an indicator of the healing process!!!*

Goals:
- Allow the PRP to absorb at the location (7-10 days)
- Muscle belly 3-4 weeks (interval return to sport program begins)
- Tendonosis 6-8 weeks (interval return to sport program begins)
- Ligaments 8-10 weeks: MCL/ LCL avoid valgus/ varus stress x 6 weeks!! (interval return to sport program begins),

**RANGE OF MOTION AND WEIGHT BEARING**

- **Week 1:** Begin PROM only for PT only in the first week.
  - PWB/NWB
- **Week 2:** Begin low level closed chain activity.
  - Walking only, Remove immobilizer, No squats or lunges
- **Week 3 and 4:** AAROM should get 90% of ROM without stretching by end of week 2
  - **Initiate trot or light jogging activities (not long duration) <15 minutes**
- **Week 4:** Begin gentle stretching  Begin squats and lunges
  - Initiate jog, stride and light run straight planes…no deceleration
- **Week 5-6:** Begin Stretching of muscles
  - **Initiate jump progression, cutting activities, sprints, change of direction**

**STRENGTH:** All pathologies must go through week 1and 2. Weeks 3 and so on…. can be modified depending on the above pathologies and sport related in season vs post season. This schedule is optimal for tissue healing.

- **Week 1-2:** no strengthening, no activity, no modalities, Gentle PROM only Towel slides to 90
- **Week 2:** begin PROM and AAROM exercises within pain free range (no stretching).
  - **Level 1 exercises:** SLR’s, bridging, planks, heel raises, form run @ walk pace. Selective dynamic warm-Up. Begin straight leg closed chain exercises on stable surface only
- **Week 2-3:** Initiate Leg press or assisted squat and lunge, Dynamic warm-up, Form run @ trot to jog pace ladder @ jog pace. Resisted walk outs -all directions. Begin Bike for cardio
- **Week 3-5:** Begin Squat and lunges, Controlled and low intensity (in place) return to sport drills. Progressive 40-60 yards (jog, and stride) . Begin elliptical for cardio
- **Week 4-7:** Begin Jump Progression, Increase speed of agility, change direction, Jogging for cardio
- **Week 5-10:** Begin sprinting and Return to sport activities 50-75%. Effort
- **Week 6-12:** Return to competition

****Overlap of timelines in based on the patient’s condition and severity of injury****